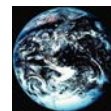




ENGINECERT.COM



EMISSION CONTROL SYSTEM ENGINEERING, TESTING  
& CERTIFICATION

## Freedom of Information Act- Redacted Version

March 23, 2010

Ms. Sara Zaremski  
U.S. Environmental Protection Agency  
Office of Transportation and Air Quality, CISD, N-32  
2000 Traverwood  
Ann Arbor, MI 48105

Dear Ms. Zaremski,

Please find attached all required supporting documents for the JDM and Associates LLC (Manufacturer code JDM) 2010 model year small-spark ignited engine category certification for engine family AJDMS.660K6A.

The emissions certification levels included in this application are laboratory measurements made using an engine based emission test and a worst case assigned multiplicative DF value. Please refer to the attached "Test Plan" document for details on the test applicability and request of the assigned DF values.

Please do not hesitate to contact me at any time should you have any questions regarding this application for certification.

With my best regards,

Michael DeGain  
ECO Sr. Emissions Engineer  
(517) 546-0873  
[mdegain@enginecert.com](mailto:mdegain@enginecert.com)

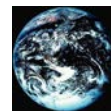
# AJDMS.660K6A Supporting Documents

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ENGINECERT.COM



EMISSION CONTROL SYSTEM ENGINEERING, TESTING  
& CERTIFICATION

## Freedom of Information Act- Redacted Version

March 26, 2010

Mr. Joshua Pietak  
P.O. Box 2731  
Rocklin, CA 95677  
916.543.5230  
[jpietak@enginecert.com](mailto:jpietak@enginecert.com)

Certification Team Leader  
Heavy-Duty and Nonroad Engine Group  
U.S. Environmental Protection Agency  
Mail Code 6403J  
1200 Pennsylvania Ave, NW  
Washington, DC 20460

Re: Statement of Compliance for JDM and Associates LLC 2010 SSIE Engine Family  
AJDMS.660K6A

Dear Certification Team Leader,  
Please find enclosed the model year 2010 application for engine family AJDMS.660K6A. JDM hereby certifies that the test engine(s), as described in this application for certification, has been tested in accordance with the applicable test procedures, utilizing the fuels and equipment required under subparts D and E of 40 CFR 90, and that on the basis of such tests the engine(s) conforms to the requirements of 40 CFR 90. JDM further certifies that the test engine(s) was/were tested by ESW America, the testing facility identified in this certification application, under a contract between JDM and Associates LLC and ESW America. JDM further certifies that all engines in this engine family comply with all requirements of 40 CFR 90 and the Clean Air Act and that the engines are not modified in any way that would affect emissions performance.

A handwritten signature in black ink, appearing to read "Joshua R. Pietak".

Joshua R. Pietak  
President  
ECO, Inc.  
JDM and Associates LLC

**EMISSION CONTROL INFORMATION LABEL  
SMALL SPARK IGNITED ENGINES**

**ENGINE FAMILY: AJDMS.660SUZ**

We will permanently affix the label shown below, which cannot be removed without destroying or defacing the label, on each production engine to a part of the engine needed for normal operation and not normally requiring replacement. The label is attached where it may easily be read. The label will be placed on each production SSI engine during the production process, before it is fully completed and crated for shipping.

Block letters:

Color of letters- Black

Color of background- White

Label will be located: On the engine on a component required for operation and not normally serviced

Font: Arial

Font Size: 11 dpi

**IMPORTANT ENGINE AND EMISSION CONTROL INFORMATION**

JDM & ASSOCIATES, LLC

ENGINE FAMILY: AJDMS.660SUZ

ENGINE DISPLACEMENT: 659CC

EMISSION CONTROL SYSTEM: MFI, TWC, H02S

THIS ENGINE IS CERTIFIED TO OPERATE ON: GASOLINE

OIL: SAE 5W-30

THE USEFUL LIFE OF THIS ENGINE IS: 1,000 HOURS



3221 SUMMERFIELD ROAD  
PETERSBURG, MICHIGAN 49270

THIS ENGINE MEETS U.S. EPA REGULATIONS FOR 2010 SMALL SPARK IGNITED ENGINES

DATE OF MANUFACTURE:

# Label Position





# Emissions Control System Part Number List

Engine Model Name	EBD-DA63T		EBD-DA65T		LE-DA63T		LE-DA62T	
	Part Number	Quantity	Part Number	Quantity	Part Number	Quantity	Part Number	Quantity
<b>Fuel System:</b>								
Throttle Body	13400-67H21	1	13400-67H21	1	13400-67H21	1	13400-67H21	1
Fuel Injector	15710-65H00	3	15710-65H00	3	15710-65H00	3	15710-65H00	3
Fuel Rail	15710-67H10	1	15710-67H10	1	15710-67H10	1	15710-67H10	1
Fuel Pump	15110-68H02	1	15110-68H02	1	15110-68H02	1	15110-68H02	1
Fuel Pressure Pressure Regulator	15610-58J10	1	15610-58J10	1	15610-58J10	1	15610-58J10	1
Fuel Line(s)	15812-67H20, 15811-67H01, 15824-67H01	1 each	15812-67H20, 15811-67H01, 15824-67H01	1 each	15812-67H20, 15811-67H01, 15824-67H01	1 each	15812-67H20, 15811-67H01, 15824-67H01	1 each
Fuel Tank	89101-78A41	1	89101-78A41	1	89101-78A41	1	89101-78A41	1
Fuel Tank Cap	89260-67H00	1	89260-67H00	1	89260-67H00	1	89260-67H00	1
Oxygen Sensor	18213-68H00	1	18213-68H00	1	18213-67H10	1	18213-60H51	1
Mass Airflow Meter	None		None		None		None	
Manifold Pressure Sensor	18590-68H00	1	18590-68H00	1	18590-68H00	1	18590-68H00	1
Throttle Position Sensor	13420-77G01	1	13420-77G01	1	13420-77G01	1	13420-77G01	1
Air Charge Temperature Sensor	13650-52G00	1	13650-52G00	1	13650-52G00	1	13650-52G00	1
Engine Control Module	33920-67HN1	1	33920-83J01	1	33920-67HD0	1	33920-65H01	1
Barometric Pressure Sensor	None		None		None		None	
Other (please specify)	Restrictor Plate (5000031)	1	Restrictor Plate (5000031)	1	Restrictor Plate (5000031)	1	Restrictor Plate (5000031)	1
<b>Intake System:</b>								
Air Cleaner Element	13780-81AA0	1	13780-81AA0	1	13780-81AA0	1	13780-81AA0	1
Air Cleaner Housing	13700-67H01	1	13700-67H01	1	13700-67H01	1	13700-67H01	1
Air Induction Duct / Tube	13881-67H00	1	13881-67H00	1	13881-67H00	1	13881-67H00	1
Intake Manifold	13110-67H00	1	13110-67H00	1	13110-67H00	1	13110-67H00	1
Turbocharger	None		None		None		None	
Supercharger	None		None		None		None	
Charge Air Cooler	None		None		None		None	
Air Restrictor Plate	5000031	1	5000031	1	5000031	1	5000031	1
Other (please specify)								
<b>Ignition System:</b>								
Spark Plug	DCPR7E	3	DCPR7E	3	DCPR7E	3	DCPR7E	3
Ignition Coil	33400-76G30	3	33400-76G30	3	33400-76G30	3	33400-76G30	3
Ignition Wire	None		None		None		None	
Crankshaft Position Sensor	None		None		None		None	
Camshaft Position Sensor	33220-58J11	1	33220-58J11	1	33220-58J11	1	33220-58J11	1
Ignition Control Module	None	1	None	1	None	1	None	1
Distributor	None		None		None		None	
Other (please specify)								
<b>EGR:</b>								
EGR Valve Assembly	None		None		None		None	
EGR Tube Assembly	None		None		None		None	
Vacuum Control Valve	None		None		None		None	
<b>Air Injection System:</b>								
Air Injection Control Valve	None		None		None		None	
Check Valve	None		None		None		None	
Solenoid Valve	None		None		None		None	
<b>Aftertreatment System:</b>								
Catalyst(s)	14190-67H30	1	14190-68H30	1	14190-67H10	1	14190-65H00	1
<b>Crankcase System:</b>								
PCV Valve	18118-65H00	1	18118-65H00	1	18118-65H00	1	18118-65H00	1
PCV Hose	11193-67H30	1	11193-67H30	1	11193-67H30	1	11193-67H30	1
<b>Exhaust System</b>								
Exhaust Manifold(s)	14111-83J00	1	14111-83J00	1	14111-83J00	1	14111-83J00	1
Muffler(s)	14300-67H40	1	14300-67H40	1	14300-67H40	1	14300-67H40	1
Exhaust Pipe(s)	14190-68H00	1	14190-68H00	1	14190-68H00	1	14190-68H00	1





# Emissions Control System Part Number List

Engine Model Name	HA24V		HA24S		DA64V		ABA-JB23W	
<b>Fuel System:</b>								
Throttle Body	13400-67H21	1	13400-67H21	1	13400-67H21	1	13400-67H21	1
Fuel Injector	15710-65H00	3	15710-65H00	3	15710-65H00	3	15710-65H00	3
Fuel Rail	15710-67H10	1	15710-67H10	1	15710-67H10	1	15710-67H10	1
Fuel Pump	15110-68H02	1	15110-68H02	1	15110-68H02	1	15110-68H02	1
Fuel Pressure Pressure Regulator	15610-58J10	1	15610-58J10	1	15610-58J10	1	15610-58J10	1
Fuel Line(s)	15812-67H20, 15811-67H01, 15824-67H01	1 each	15812-67H20, 15811-67H01, 15824-67H01	1 each	15812-67H20, 15811-67H01, 15824-67H01	1 each	15812-67H20, 15811-67H01, 15824-67H01	1 each
Fuel Tank	89101-78A41	1	89101-78A41	1	89101-78A41	1	89101-78A41	1
Fuel Tank Cap	89260-67H00	1	89260-67H00	1	89260-67H00	1	89260-67H00	1
Oxygen Sensor	18213-68H00	1	18213-68H00	1	18213-68H00	1	18213-68H00	1
Mass Airflow Meter	None		None		None		None	
Manifold Pressure Sensor	18590-68H00	1	18590-68H00	1	18590-68H00	1	18590-68H00	1
Throttle Position Sensor	13420-77G01	1	13420-77G01	1	13420-77G01	1	13420-77G01	1
Air Charge Temperature Sensor	13650-52G00	1	13650-52G00	1	13650-52G00	1	13650-52G00	1
Engine Control Module	33920-65NA0	1	33920-65NA0	1	33920-65NA0	1	33920-65NA0	1
Barometric Pressure Sensor	None		None		None		None	
Restrictor Plate (5000031)	1	Restrict	1	Restrict	1	Restrict	1	Restrict
<b>Intake System:</b>								
Air Cleaner Element	13780-81AA0	1	13780-81AA0	1	13780-81AA0	1	13780-81AA0	1
Air Cleaner Housing	13700-67H01	1	13700-67H01	1	13700-67H01	1	13700-67H01	1
Air Induction Duct / Tube	13881-67H00	1	13881-67H00	1	13881-67H00	1	13881-67H00	1
Intake Manifold	13110-67H00	1	13110-67H00	1	13110-67H00	1	13110-67H00	1
Turbocharger	None		None		None		None	
Supercharger	None		None		None		None	
Charge Air Cooler	None		None		None		None	
Air Restrictor Plate	5000031	1	5000031	1	5000031	1	5000031	1
Other (please specify)								
<b>Ignition System:</b>								
Spark Plug	DCPR7E	3	DCPR7E	3	DCPR7E	3	DCPR7E	3
Ignition Coil	33400-76G30	3	33400-76G30	3	33400-76G30	3	33400-76G30	3
Ignition Wire	None		None		None		None	
Crankshaft Position Sensor	None		None		None		None	
Camshaft Position Sensor	33220-58J11	1	33220-58J11	1	33220-58J11	1	33220-58J11	1
Ignition Control Module	None	1	None	1	None	1	None	1
Distributor	None		None		None		None	
Other (please specify)								
<b>EGR:</b>								
EGR Valve Assembly	None		None		None		None	
EGR Tube Assembly	None		None		None		None	
Vacuum Control Valve	None		None		None		None	
<b>Air Injection System:</b>								
Air Injection Control Valve	None		None		None		None	
Check Valve	None		None		None		None	
Solenoid Valve	None		None		None		None	
<b>Aftertreatment System:</b>								
Catalyst(s)	14190-67H30	1	14190-67H30	1	14190-67H30	1	14190-67H30	1
<b>Crankcase System:</b>								
PCV Valve	18118-65H00	1	18118-65H00	1	18118-65H00	1	18118-65H00	1
PCV Hose	11193-67H30	1	11193-67H30	1	11193-67H30	1	11193-67H30	1
<b>Exhaust System</b>								
Exhaust Manifold(s)	14111-83J00	1	14111-83J00	1	14111-83J00	1	14111-83J00	1
Muffler(s)	14300-67H40	1	14300-67H40	1	14300-67H40	1	14300-67H40	1
Exhaust Pipe(s)	14190-68H00	1	14190-68H00	1	14190-68H00	1	14190-68H00	1



# Emissions Control System Part Number List

Engine Model Name	CBA-HN22S		CBS-HB24S		DG63T		DG64V	
<b>Fuel System:</b>								
Throttle Body	13400-67H21	1	13400-67H21	1	13400-67H21	1	13400-67H21	1
Fuel Injector	15710-65H00	3	15710-65H00	3	15710-65H00	3	15710-65H00	3
Fuel Rail	15710-67H10	1	15710-67H10	1	15710-67H10	1	15710-67H10	1
Fuel Pump	15110-68H02	1	15110-68H02	1	15110-68H02	1	15110-68H02	1
Fuel Pressure Pressure Regulator	15610-58J10	1	15610-58J10	1	15610-58J10	1	15610-58J10	1
Fuel Line(s)	15812-67H20, 15811-67H01, 15824-67H01	1 each	15812-67H20, 15811-67H01, 15824-67H01	1 each	15812-67H20, 15811-67H01, 15824-67H01	1 each	15812-67H20, 15811-67H01, 15824-67H01	1 each
Fuel Tank	89101-78A41	1	89101-78A41	1	89101-78A41	1	89101-78A41	1
Fuel Tank Cap	89260-67H00	1	89260-67H00	1	89260-67H00	1	89260-67H00	1
Oxygen Sensor	18213-68H00	1	18213-68H00	1	18213-68H00	1	18213-68H00	1
Mass Airflow Meter	None		None		None		None	
Manifold Pressure Sensor	18590-68H00	1	18590-68H00	1	18590-68H00	1	18590-68H00	1
Throttle Position Sensor	13420-77G01	1	13420-77G01	1	13420-77G01	1	13420-77G01	1
Air Charge Temperature Sensor	13650-52G00	1	13650-52G00	1	13650-52G00	1	13650-52G00	1
Engine Control Module	33920-65NA0	1	33920-65NA0	1	33920-67HN1	1	33920-65NA0	1
Barometric Pressure Sensor	None		None		None		None	
1	Restrictor Plate (5000031)	1	Restrictor Plate (5000031)	1	Restrictor Plate (5000031)	1	Restrictor Plate (5000031)	1
<b>Intake System:</b>								
Air Cleaner Element	13780-81AA0	1	13780-81AA0	1	13780-81AA0	1	13780-81AA0	1
Air Cleaner Housing	13700-67H01	1	13700-67H01	1	13700-67H01	1	13700-67H01	1
Air Induction Duct / Tube	13881-67H00	1	13881-67H00	1	13881-67H00	1	13881-67H00	1
Intake Manifold	13110-67H00	1	13110-67H00	1	13110-67H00	1	13110-67H00	1
Turbocharger	None		None		None		None	
Supercharger	None		None		None		None	
Charge Air Cooler	None		None		None		None	
Air Restrictor Plate	5000031	1	5000031	1	5000031	1	5000031	1
Other (please specify)								
<b>Ignition System:</b>								
Spark Plug	DCPR7E	3	DCPR7E	3	DCPR7E	3	DCPR7E	3
Ignition Coil	33400-76G30	3	33400-76G30	3	33400-76G30	3	33400-76G30	3
Ignition Wire	None		None		None		None	
Crankshaft Position Sensor	None		None		None		None	
Camshaft Position Sensor	33220-58J11	1	33220-58J11	1	33220-58J11	1	33220-58J11	1
Ignition Control Module	None	1	None	1	None	1	None	1
Distributor	None		None		None		None	
Other (please specify)								
<b>EGR:</b>								
EGR Valve Assembly	None		None		None		None	
EGR Tube Assembly	None		None		None		None	
Vacuum Control Valve	None		None		None		None	
<b>Air Injection System:</b>								
Air Injection Control Valve	None		None		None		None	
Check Valve	None		None		None		None	
Solenoid Valve	None		None		None		None	
<b>Aftertreatment System:</b>								
Catalyst(s)	14190-67H30	1	14190-67H30	1	14190-68H00	1	14190-67H30	1
<b>Crankcase System:</b>								
PCV Valve	18118-65H00	1	18118-65H00	1	18118-65H00	1	18118-65H00	1
PCV Hose	11193-67H30	1	11193-67H30	1	11193-67H30	1	11193-67H30	1
<b>Exhaust System</b>								
Exhaust Manifold(s)	14111-83J00	1	14111-83J00	1	14111-83J00	1	14111-83J00	1
Muffler(s)	14300-67H40	1	14300-67H40	1	14300-67H40	1	14300-67H40	1
Exhaust Pipe(s)	14190-68H00	1	14190-68H00	1	14190-68H00	1	14190-68H00	1





2010 MODEL YEAR

K6A ENGINE OWNERS MANUAL  
AND MAINTENANCE INSTRUCTIONS

**NOTICE:**

**Maintenance, replacement, or repair of the emission control devices and systems may be performed by any non-road engine repair establishment or individual.**



# JDM & Associates, LLC

Congratulations on your purchase of a JDM & Associates Off-Road Mini Truck.

We have prepared this document to provide clear written instructions to help you to properly service and maintain you vehicle. If, after review of this information, you still have questions, please contact:

## Customer Support

JDM & Associates, LLC  
3221 Summerfield Road  
Petersburg, Michigan 49270  
1-(866)- 695-3616  
[JDM@cass.net](mailto:JDM@cass.net)

## Warnings and Caution Statements

### Warning- Do Not Use Leaded Fuel

The emissions control system for this vehicle is equipped with a three way catalytic converter. The use of any leaded gasoline will cause permanent damage to the emission control system. Any damage resulting from the use of leaded gasoline is excluded from the warranty coverage. JDM shall not be responsible for any warranty claims including diagnosis, parts, or labor resulting from operating engine using leaded fuels.

### Warning- Off Road Use Only:

This mini truck utility vehicle is intended for off road use only. Each new vehicle and engine has been designed and certified to satisfy all US EPA requirements for 2010 model year Small Off-Road Engines. This vehicle does not satisfy US EPA requirements or US DOT safety requirements for on road vehicles. Please do not operate this vehicle on a public road at any time.

### Warning- Do Not Tamper:

This vehicle includes a mechanical speed limiter device installed to the transmission gear shift. This is a required part of the emissions control system. Modification or removal of this part shall be considered tampering and is prohibited by US EPA regulations and the Federal Clean Air Act. Removal or tampering with any part of the emissions control system shall immediately void the warranty.



## Service Data and Change Interval Requirements

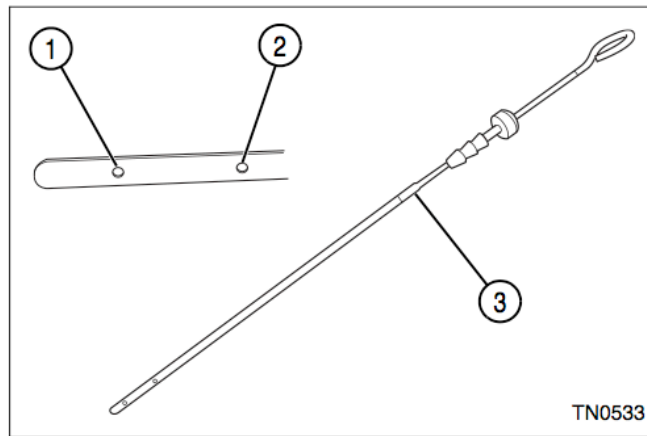
**Fuel:** Unleaded Gasoline 87 Octane (R+M)/2 method

**Oil Filter:** **#AY100-KE002-01**  
Change oil filter every 5000 Km

**Engine Oil:** Suzuki Exeter Oil 10W-30(SL/CF, SM/GF-4), 5W-30(SL/CF)  
2.95QT without Filter, 3.17QT with Filter  
Change oil and filter every 5000 Km



**Note:** Dipstick for checking engine oil is located under the drivers seat at the front of the vehicle.



**Figure 3-1**

1. Park the vehicle on a level surface.
2. Operate the engine until normal operating temperature is reached.
3. Stop the engine. Remove dipstick (3) and wipe clean. Install and remove dipstick again.
4. Check engine oil level.  
If oil level is at or below low mark (1), add oil until the level reaches the full mark (2).
5. Install dipstick (3).

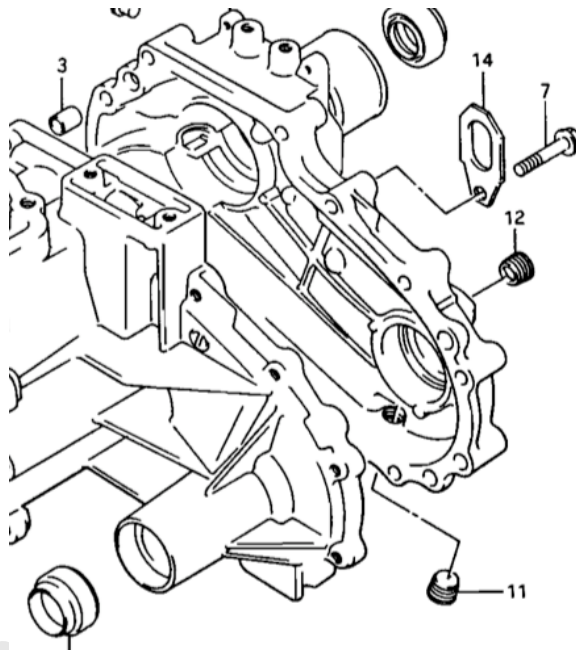
**Transmission:** M/T 75W-90 (GL-4) 2WD – 1.48QT 4WD – 2.85QT  
Change fluid every 40,000 KM  
(20,000 KM under severe conditions)  
See transfer case instructions for checking or changing fluids.



## JDM & Associates, LLC

AT Suzuki ATF 2384K      3.59QT  
Change fluid every 40,000 KM  
(20,000 KM under severe conditions)

**Transfer Case:**      Same as Transmission  
Change fluid every 40,000 KM,  
(20,000 KM under severe conditions)  
Transfer case drain is located at the back and bottom side of  
the transfer case.



The Transmission and transfer case are drained by removing Plug (11).

To check transmission fluid levels, have the vehicle parked, brake set and keys removed.

Remove plug (12) and fill until fluid just begins to escape from the hole. The transmission and transfer case are checked and filled from the same location.

### Differential

Suzuki Super Gear 80W-90 (GL-5)  
Front - .63QT  
Rear – 1.056QT  
Change fluid every 40,000 KM  
(20,000 KM under severe conditions)

### Coolant

Suzuki Coolant      MT – 2.11QT AT – 4.64QT  
50% concentrate = ~-31°F cold climate recommendations



## JDM & Associates, LLC

30% concentrate = ~5°F warm climate recommendations

Change Coolant every 2 years. Contact your JDM authorized service center for coolant check and coolant replacement.

### Washer Fluid

Suzuki Washer Fluid  
1.9QT

In cold climates check concentrate level to determine proper mix to prevent freezing of fluid.

### Brake Fluid

(DOT-3)

### Brake Hoses

Change every 4 years

### Vacuum lines

Change every 5 years, 4 years if in severe duty

### Fuse Box

The fuse box is located in under the Passenger Seat on the left side of the vehicle next to the battery. Symbols on the battery box cover gives size and circuit location.

Fuse	Display	Capacity	connected to device
1	-	-	
2	RDTR	30A	Radiator Fan
3	LAMP	30A	Illumination Circuit
4	S T	30A	Starter
5	H/L R	15A	Headlight Right
6	H/L L	15A	Headlight Left
7	FI	15A	Fuel Injection device
8	-	-	-
9	IGN	60A	Ignition device
10	A/C	20A	Air Conditioning

Fuses may differ depending on the specifications of your vehicle. The above diagram indicates the devices that are connected to each fuse.



## JDM & Associates, LLC

Spark Plugs NGK: DCRPR7E (0.8 – 0.9mm)  
Change Spark plugs every 20,000 KM

**Idling RPM** 900 +/- 100 RPM

**Brake Pedal Play** ~1/4"

**Clutch Pedal Play** ~1/3 to 2/3"

**V Belts** Tension per belt manufacture instructions

**Air Filter** #MD620584 or Equivalent  
Change element every 10,000 KM

**Timing Belt/  
Chain** Change every 100,000 KM  
(50,000 KM under severe conditions)

**Fuel Filter** Change every 40,000 KM

**Severe usage is defined as: Off-road driving, or Driving over 20,000KM per year, or frequent starts and stops.**

**Caution:** Inspect the following daily prior to starting your Suzuki Engine.

Check all fluid levels and add as necessary

Brake Fluid

Battery

Coolant

Window Washer Fluid

Engine Oil

Check and replace any worn belts or parts

**Check the following on a daily basis:**

Tire inspection and wear

Air pressure

Parking Brake

Seat Belt

Brake pedal

**Drive inspection and tests:**

Engine

Low speed test acceleration

Braking test

Brake performance inspection



## JDM & Associates, LLC

**Caution:** Never operate any part of the vehicle if fluid levels are below the min. line or when a decrease in the fluid level is very sudden. Contact your nearest JDM authorized service center for testing and repair.

### **Maintenance inspection and examination**

Maintenance and inspection is the responsibility of the vehicle owner. This vehicle should be inspected regularly. Responsibility for the inspections of the vehicle rests on the owner of the vehicle. Appropriate maintenance and inspection in accordance with its usage conditions must be carried out regularly.

It is recommended that you contact your local JDM authorized service center for regular maintenance and inspection of your vehicle.

### **Maintenance inspection records**

Be sure to enter details of any maintenance inspections into the vehicle's record book. Such records of past maintenance not only help to prevent future unnecessary maintenance but it also provides an important record to be used as a reference for decision on warranty repairs. All maintenance such as daily checks and oil changes should be recorded.





## EMISSIONS CONTROL DEVICES WARRANTY COVERAGE

The US Environmental Protection Agency and JDM & Associates, LLC ("JDM") are pleased to explain the emission control devices warranty requirements that apply to your new 2010 model year engine. Specific warranty rights and obligations apply to Owner's of JDM engines during the warranty period described.

JDM WARRANTIES that each engine sold to the original purchaser and each subsequent purchaser is:

1. Designed, built and equipped so as to conform at the time of sale with applicable regulations under section 213 of the Federal Clean Air Act.
2. Free from defects in materials and workmanship which cause such engine to fail to conform with applicable regulations for its warranty period.

### EMISSION CONTROL WARRANTY PARTS LIST:

#### Fuel Metering System:

- Fuel injection system
- Air/fuel feedback control system
- Fuel injectors
- Oxygen sensor
- Engine Control Module or PCM
- Fuel pressure regulator
- Fuel Rail
- Fuel lines (any and all)
- Engine control sensors (Coolant temperature sensor, Manifold pressure sensor, Throttle position sensor, Camshaft position sensor, Air temperature sensor)

#### Air Induction System:

- Controlled hot air intake system (if included)
- Intake manifold
- Throttle body assembly
- Airflow restrictor

Ignition System:

- Spark plugs
- Ignition coils
- Engine Control Module or PCM

After-treatment System:

- Three-way catalytic converter

Misc. Items Used in Above Systems:

- Vacuum, temperature, and time sensitive valves and switches
- Electronic controls
- Emissions related hoses, belts, connectors, and assemblies
- Charcoal canister, related switches and plumbing hoses, fuel caps or other devices related to evaporative controls.

EMISSION WARRANTY TERMS:

1. Any warranted emission part described in the list above shall be covered for a period of two years from the date of sale to the original end user, and any such part repaired or replaced under the warranty will be warranted for the remaining warranty period.
2. Where a warrantable condition exists, JDM will repair your engine at no cost to you including all diagnosis, parts, and labor.
3. Warranty coverage shall be provided to the original purchaser and any subsequent purchaser during the warranty period described.
4. Any warranted emission part that is scheduled for replacement as required in JDM's owner's manual shall be warranted for the period of time prior to the first scheduled replacement point for that part. If the emission part fails prior to the first scheduled replacement, the part shall be repaired or replaced by JDM at no charge, and any such part repaired or replaced by JDM at no charge, and any such part repaired or replaced under this warranty shall be warranted for the remainder of the period prior to the first scheduled replacement point for the part.
5. It is the responsibility of the owner to present the engine to service center as soon as a problem exists. All warranty repairs shall be completed in a reasonable amount of time not to exceed 30 days.
6. Warranty services on all JDM engines are available at all authorized JDM dealers, distributors, and/or specified service centers. In some cases, Warranty services are also available at non-authorized repair facilities. For assistance to locate a warranty service center please contact JDM by telephone at 866-695-3616 or by email at JDM@cass.net.

7. The owner may not be held liable for any charges related to diagnostic labor used to determine that a warranted emission part is in fact defective.
8. JDM is not liable to warrant failures of warranted parts caused by the use of add-on or modified parts.
9. JDM is not liable to warrant failures of warranted parts resulting from tampering with or making other changes of any kind to the vehicle's speed limiting devices.
10. The owner is responsible for the proper maintenance of the engine as stated in the manufacturer's written instructions. JDM is not liable to warrant failures that result from variance from prescribed maintenance and operation instructions, and/or abuse, misuse neglect or accident. As the owner, JDM recommends that you should retain all receipts covering maintenance on your engine, but JDM cannot deny warranty coverage solely for the lack of receipts or for your failure to complete all scheduled maintenance.
11. All JDM engines are designed to run on unleaded gasoline only. Use of any other fuel type will cause the warranty to be voided, and may lead to damage of the Catalytic Converter and unacceptable levels of emissions. Please refer to the owner's manual for further information on fuel requirements.
12. If you have any questions regarding your emission control warranty rights and/or obligations, please contact the JDM Warranty Department by telephone at 866-695-3616 or by email at [JDM@cass.net](mailto:JDM@cass.net).

JDM & Associates, LLC  
3221 Summerfield Road  
Petersburg, Michigan 49270

	Emission Test Results					
TEST			ENGINE:			
Test Number	T-03					
Date of Test	3/18/2010		Make	Suzuki		
Test Cell No.	7		Family	???		
System or Device			Year			
Dynamometer  Type;S/N:	Eddy Current ; 242/046		Model			
Fuel	Gasoline, CA Phase II Cert		Displacement			
Instrument Operator	Steve/Ashok					
Barometric Pressure	759					
Dry Bulb Temp.	73.2					
Wet Bulb Temp.	62.1					
Mode ->						
Parameter	Mode 1	Mode 2	Mode 3	Mode 4	Mode 5	Mode 6
% Load	100	75	50	25	10	0
Weighting Factor	9%	20%	29%	30%	7%	5%
ENGINE DATA						
Speed ( RPM)	5000	5000	5000	5000	5000	975
Torque (ft-lb)	31.36	24.48	16.27	7.76	3.23	-0.09
Horsepower	29.85	23.30	15.49	7.39	3.08	-0.02
Air Inlet Temp. (°F)	73.0	73.0	73.0	73.0	73.0	73.0
Exh. Gas Temp. (°F)	939	927	903	816	688	472
Fuel Consumption (gal/hr)	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
CVS DATA						
Sample Time	5.0	5.0	5.0	5.0	5.0	5.0
CVS Inlet Press.(in H2O)	28.7	28.7	28.7	28.7	28.7	28.7
CVS Inlet Temp. (°F)	99.0	109.9	99.9	88.9	81.7	74.9
DILUTED EXHAUST ANALYSIS						
CH4 (ppmC)	14.05	10.31	1.15	0.78	0.69	0.12
THC (ppmC)	449.64	372.35	19.44	10.42	7.29	5.52
CO (ppm)	9560.03	8572.94	229.41	187.05	13.65	8.85
NOx (ppm)	0.64	0.43	1.02	0.09	0.03	-0.04
CO2 (%)	1.15	1.00	1.12	0.74	0.55	0.10
Vo Kv	326.09557	326.09635	326.09743	326.09800	326.09760	326.09698
Vmix Q	395.2	391.6	395.2	399.3	401.8	404.3
DF	6.27	7.13	11.48	17.06	23.26	102.16
Kh	0.95348	0.95348	0.95348	0.95348	0.95348	0.95348
RESULTS						
CH4 g/hr	5.44	3.95	0.44	0.30	0.27	0.05
THC g/hr	174.13	142.85	7.53	4.08	2.87	2.19
NMHC g/hr	168.69	138.90	7.08	3.77	2.60	2.14
CO g/hr	7474.60	6640.40	179.35	147.73	10.85	7.08
CO2 g/hr	14195.37	12133.90	13715.99	9191.89	6846.44	1287.73
NOx g/hr	0.79	0.53	1.25	0.12	0.03	-0.06
CH4 (g/bhp-hr)	0.182	0.170	0.029	0.041	0.088	-2.695
THC (g/bhp-hr)	5.833	6.130	0.486	0.552	0.934	-129.021
NMHC (g/bhp-hr)	5.651	5.961	0.457	0.511	0.845	-126.326
CO (g/bhp-hr)	250.392	284.968	11.578	19.989	3.528	-417.425
NOx (g/bhp-hr)	0.026	0.023	0.081	0.016	0.011	3.308
WEIGHTED MASS CALCULATION						
CH4	NOx	CO	CO2	HC+NOx	THC	NMHC
g/bhp-hr	g/bhp-hr	g/bhp-hr	g/bhp-hr	g/bhp-hr	g/bhp-hr	g/bhp-hr
0.107	0.040	147.028	769.615	3.401	3.361	3.254
0.143	0.054	197.164	1032.053	4.560	4.506	4.363
g/kw-hr	g/kw-hr	g/kw-hr	g/kw-hr	g/kw-hr	g/kw-hr	g/kw-hr

	Emission Test Results					
TEST						
Test Number	T-05		ENGINE:			
Date of Test	3/24/2010		Engine Serial Number	1280287		
Test Cell No.	ATS TC 7		Make	Suzuki		
Dynamometer  Type;S/N:	Eddy Current ; 242/046		Family			
Fuel	Gasoline, CA Phase II Cert		Engine Production date	Oct-01		
			Model	LE-DA62T		
Instrument Operator	Steve/Ashok		Vehicle Chassis Number	DA62T-309392		
Barometric Pressure	757		Vehicle Odometer Reading	101,643 KM		
Dry Bulb Temp.	75.5					
Wet Bulb Temp.	64.1		Device/ Config.	As Supplied		
Test Start Time	2:28:43 PM					
Test End Time	3:08:56 PM					
Mode ->						
Parameter	Mode 1	Mode 2	Mode 3	Mode 4	Mode 5	Mode 6
% Load	100	75	50	25	10	0
Weighting Factor	9%	20%	29%	30%	7%	5%
ENGINE DATA						
Speed ( RPM)	5000	5000	5000	5000	5000	955
Torque (ft-lb)	32.03	25.27	16.62	8.35	3.33	0.11
Horsepower	30.49	24.06	15.82	7.95	3.17	0.02
Air Inlet Temp. (°F)	74.8	76.9	76.6	76.5	75.5	72.9
Exh. Gas Temp. (°F)	941	941	925	830	690	497
CVS DATA						
Sample Time	5.0	5.0	5.0	5.0	5.0	5.0
CVS Inlet Press.(in H2O)	28.7	28.8	28.8	28.8	28.8	28.8
CVS Inlet Temp. (°F)	118.2	116.9	102.9	90.1	82.3	75.3
DILUTED EXHAUST ANALYSIS						
CH4 (ppmC)	56.79	42.32	5.45	3.34	3.09	0.15
THC (ppmC)	517.03	396.43	22.20	13.58	9.86	5.27
CO (ppm)	10643.29	9205.16	355.27	181.91	11.41	14.20
NOx (ppm)	0.94	0.64	0.88	0.56	0.56	0.28
CO2 (%)	1.12	0.96	1.12	0.75	0.55	0.07
Vo Kv	326.10292	326.10346	326.10423	326.10491	326.10533	326.10513
Vmix Q	389.8	390.4	395.3	400.0	402.9	405.5
DF	6.06	7.00	11.35	16.82	23.18	128.50
Kh	0.97804	0.97804	0.97804	0.97804	0.97804	0.97804
RESULTS						
CH4 g/hr	21.69	16.19	2.11	1.31	1.22	0.06
THC g/hr	197.48	151.63	8.60	5.32	3.89	2.09
NMHC g/hr	175.79	135.44	6.49	4.01	2.67	2.03
CO g/hr	8207.64	7108.33	277.81	143.94	9.10	11.39
CO2 g/hr	13529.23	11674.69	13712.91	9305.42	6839.71	891.63
NOx g/hr	1.17	0.79	1.11	0.71	0.72	0.36
CH4 (g/bhp-hr)	0.711	0.673	0.133	0.164	0.386	2.988
THC (g/bhp-hr)	6.477	6.302	0.544	0.669	1.230	101.894
NMHC (g/bhp-hr)	5.766	5.629	0.410	0.505	0.844	98.906
CO (g/bhp-hr)	269.202	295.436	17.564	18.102	2.874	554.020
CO2 (g/bhp-hr)	443.744	485.222	866.963	1170.278	2160.814	43376.714
NOx (g/bhp-hr)	0.038	0.033	0.070	0.089	0.226	17.309
Carbon Balance Error						
Estimated Mass of fuel used for entire mode (lbs)	1.567	1.352	0.821	0.553	0.398	0.053
Mass of fuel measured for entire mode (lbs)	1.595	1.390	0.855	0.545	0.400	0.059
CBE %	1.7%	2.8%	3.9%	-1.5%	0.5%	10.0%
WEIGHTED MASS CALCULATION						
CH4	NOx	CO	CO2	HC+NOx	THC	NMHC
g/bhp-hr	g/bhp-hr	g/bhp-hr	g/bhp-hr	g/bhp-hr	g/bhp-hr	g/bhp-hr
0.426	0.059	154.924	735.151	3.622	3.564	3.138
0.571	0.079	207.754	985.838	4.857	4.779	4.208
g/kw-hr	g/kw-hr	g/kw-hr	g/kw-hr	g/kw-hr	g/kw-hr	g/kw-hr



## Emissions Certification Level Calculations

**Engine Family AJDMS.660K6A**

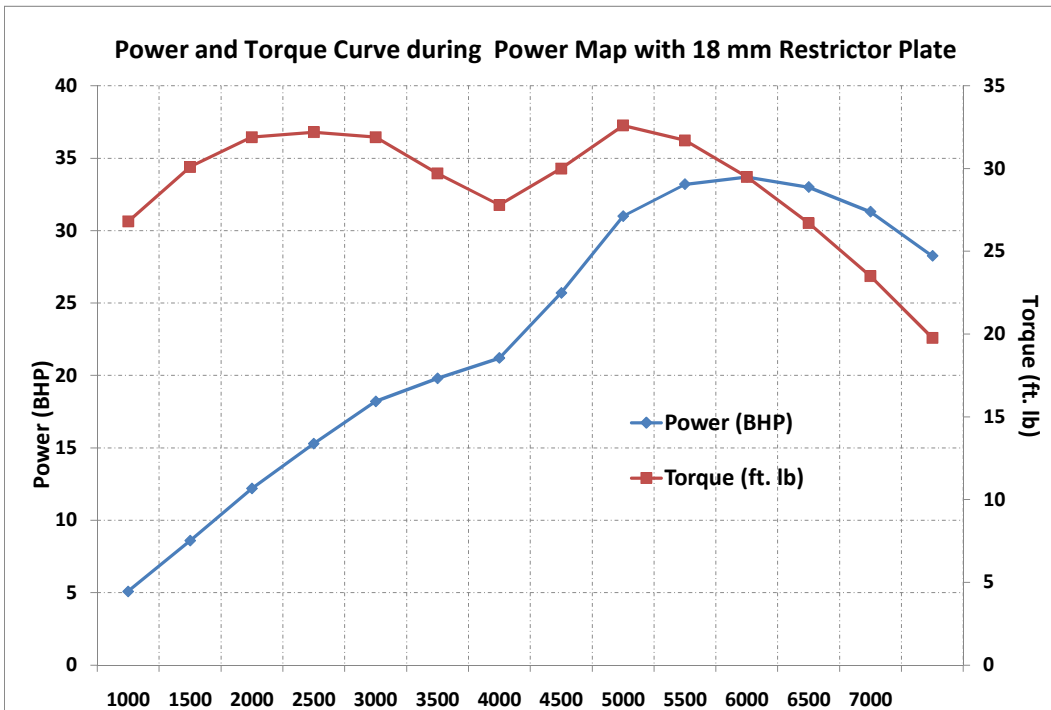
**Test Number T-05**

**Engine Serial Number 1280287**

	HC	NOx	HC+NOx	CO	C02
	[g/kW-Hr]				
Zero Hour Test Results	4.78	0.079		207.75	985.838
Multiplicative DF's	1	2.723		1.591	
EUL Emissions Values	4.78	0.215117	4.995117	330.53025	

JDM Restricted Engine Performance  
 Restrictor Location - Downstream of throttle, upstream of intake manifold  
 Restrictor size - 18mm  
 OEM manifold throat diameter - 38.1mm  
 Max observed power - 25.1kW  
 JDM Certified Configuration Rated Power - 25.1kW @ 6000RPM

Dyno Speed	Observed Power	Torque	Observed Power	Torque
rpm	bhp	lb.ft	kW	Nm
1000	5.1	26.8	3.80307	36.33544
1500	8.6	30.1	6.41302	40.80958
2000	12.2	31.9	9.09754	43.25002
2500	15.3	32.2	11.40921	43.65676
3000	18.2	31.9	13.57174	43.25002
3500	19.8	29.7	14.76486	40.26726
4000	21.2	27.8	15.80884	37.69124
4500	25.7	30	19.16449	40.674
5000	31	32.6	23.1167	44.19908
5500	33.2	31.7	24.75724	42.97886
6000	33.7	29.5	25.13009	39.9961
6500	33	26.7	24.6081	36.19986
7000	31.3	23.5	23.34041	31.8613
7500	28.2	19.8	21.06252953	26.810945



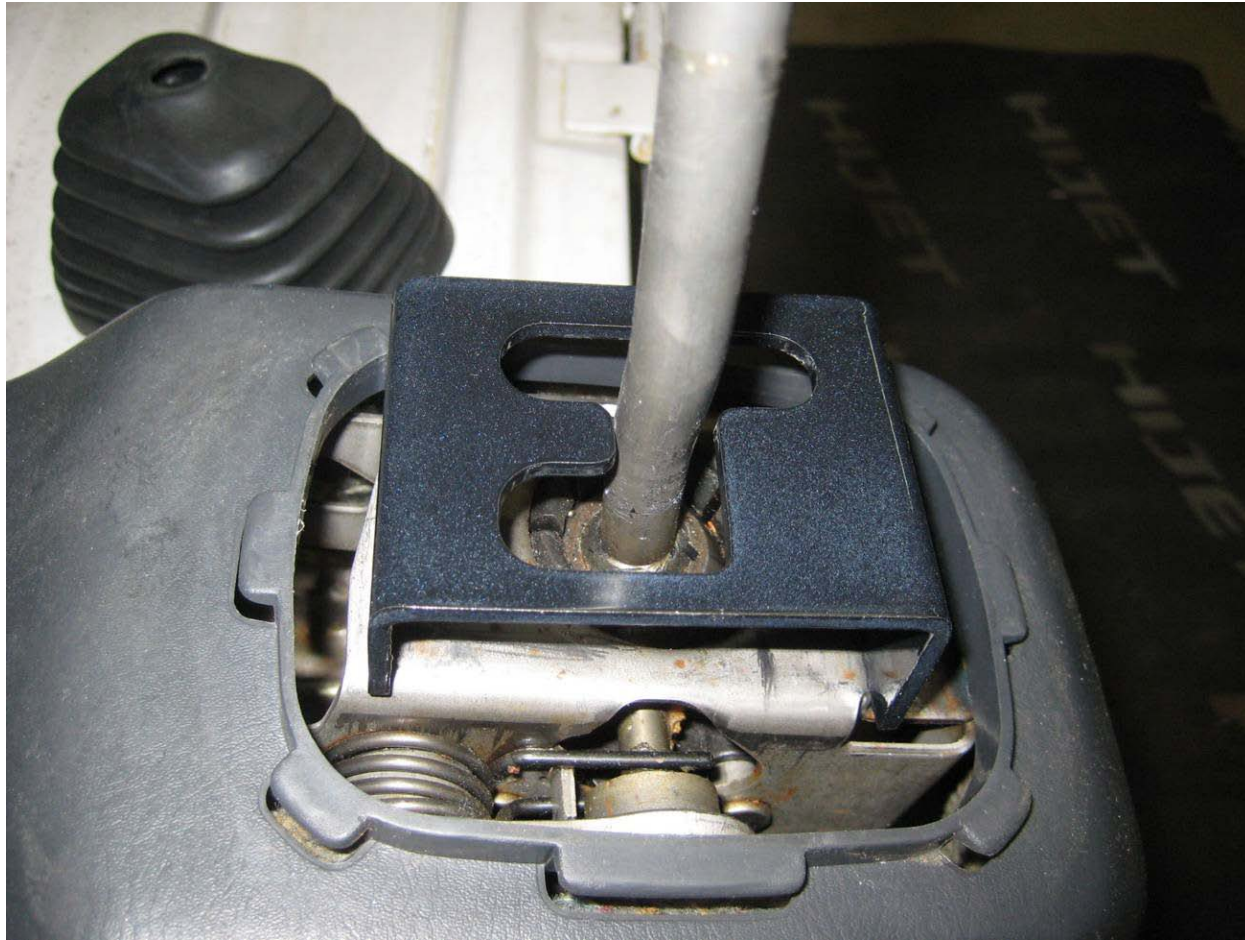


# Summary of Modifications

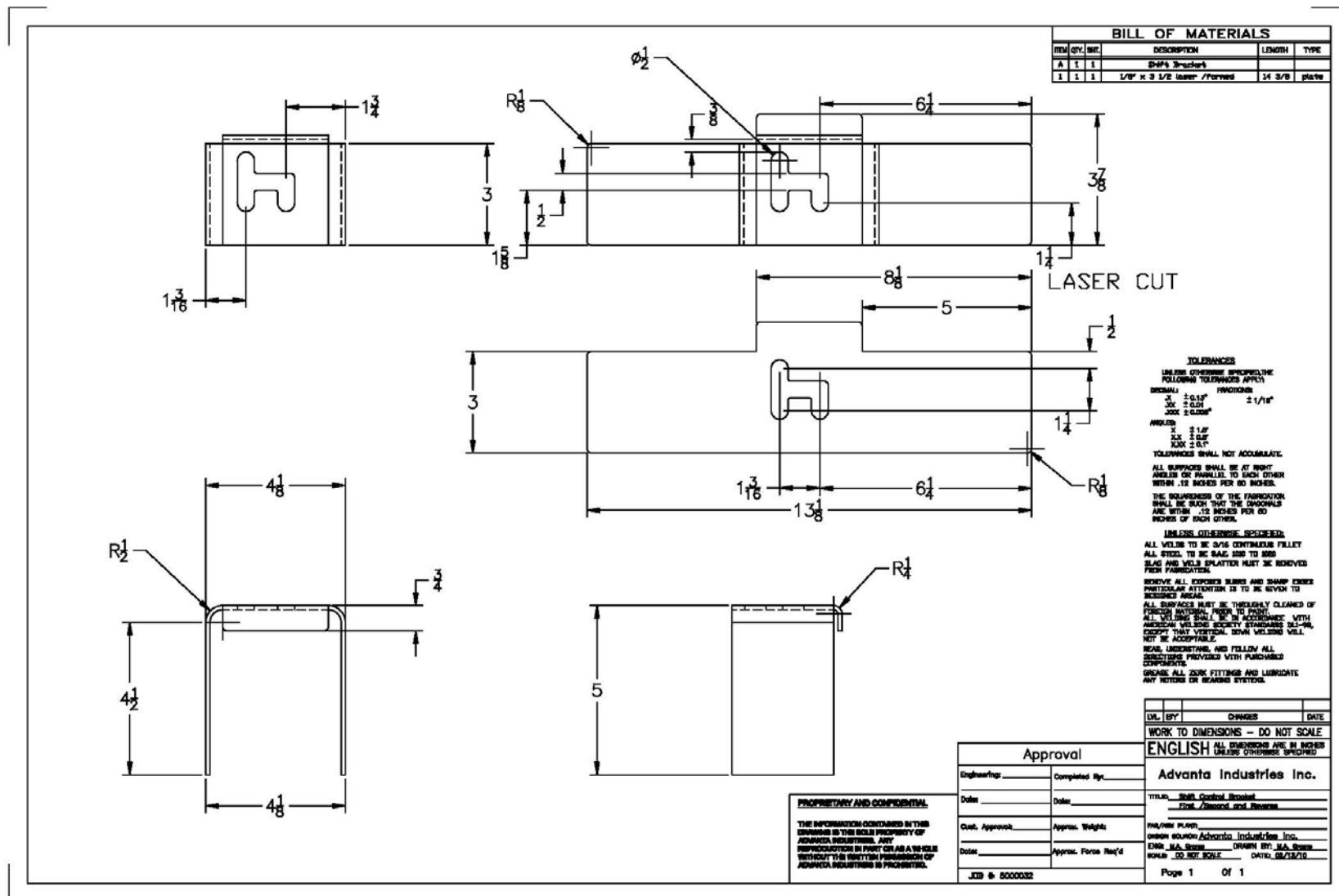
JDM and Associates LLC will modify all mini-trucks before importation into the United States. The modifications will include speed limiting and an engine air restrictor plate.

## Speed Limiting

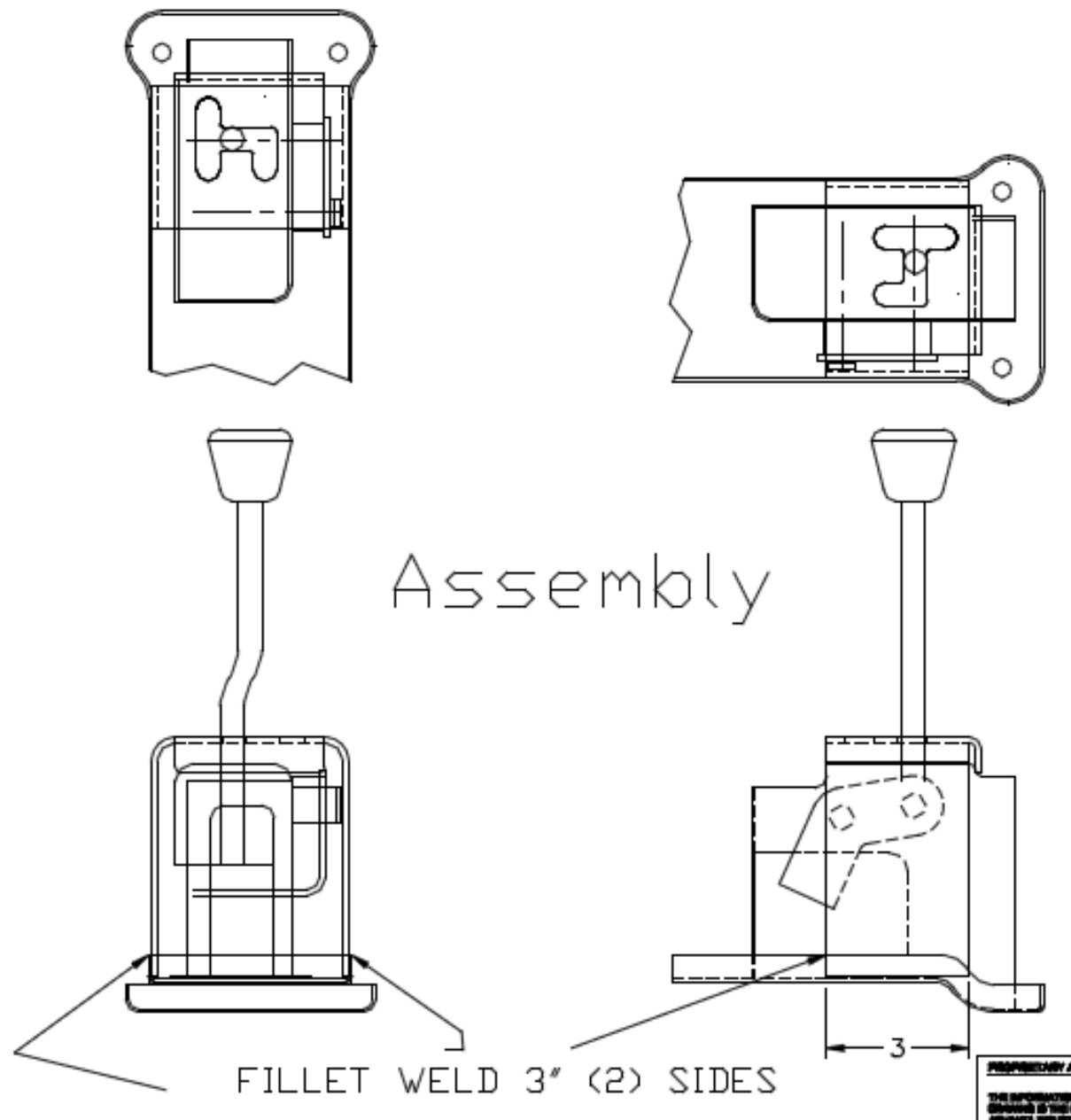
A shifter plate will be installed onto each vehicle which will reduce the number of gears available for vehicle operation. See image below:



Shifter Plate drawing:

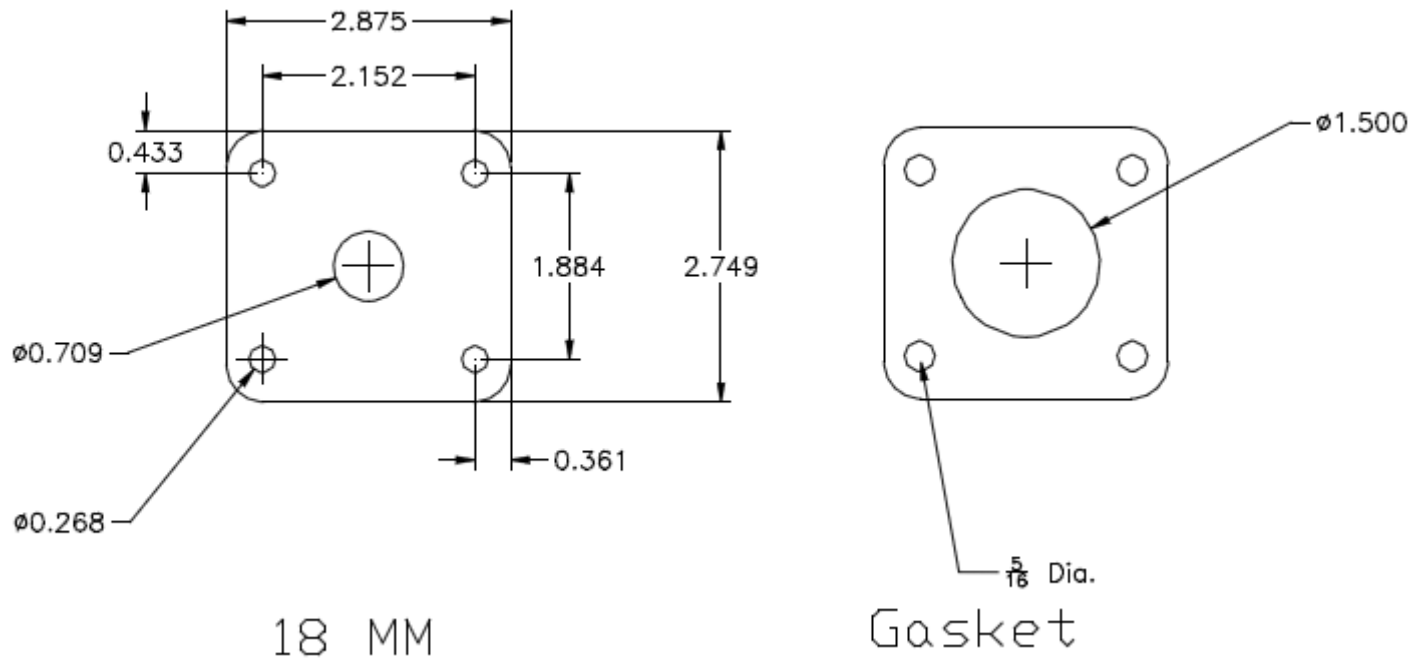


The shifter plate will be installed permanently by welding process as pictured in the assembly drawing below:



### Engine Air Restrictor plate

An engine air restrictor plate will be installed into each vehicle. See diagram below:



Instructions for installation:

- 1) Remove 4 bolts securing the throttle body to the Intake manifold.
- 2) Carefully remove the throttle body from the intake manifold. (do not damage the gasket)
- 3) Install restrictor plate in between throttle body and intake manifold with extra gasket supplied.
- 4) Replace all four bolts with PENTA-PLUS high security fastener.

PENTA-PLUS high security fastener flyer below:

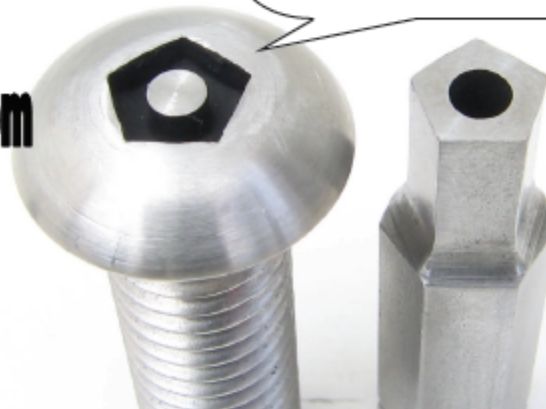
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Fastener

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Phone: 480.503.3801  
Fax: 480.503.3834

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- Penta-Plus has proved itself very successful for universities, electronic retail, and city government facilities.
- Wider range of sizes, lengths, and shorter lead times. Sizes range from **2/56 - 5/8**.
- Bits are tight fitting allowing stronger torque, and center pin is oversized configured to repel all bits and tools on the market.
- Drivers are tightly controlled and never sold through distribution.